

WAIS Inc.

Wide Area Information Servers, Inc.

Internet Publishing

Brewster Kahle
President
Japan 12/93

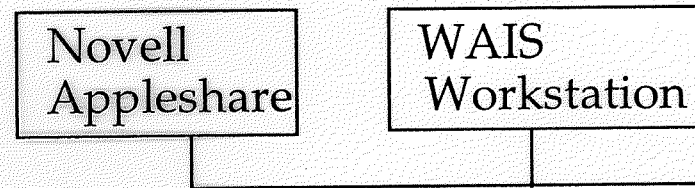
WAIS Inc Markets and Partners

- Large Corporations
 - Fujitsu, Intel
 - Perot Systems, Mitre
- Publishers
 - Dow Jones, encyclopedia, Scholastic Inc
 - Sun Microsystems
- Government
 - NASA, Defense, Intelligence
 - US Government Printing Office
- Libraries
 - Library of Congress, Rice University

WAIS Inc Products

WAIS Workstation for Unix

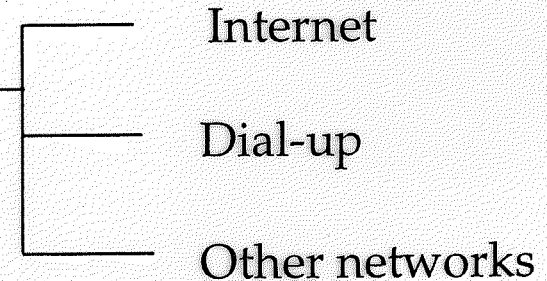
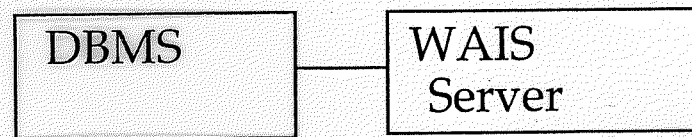
\$10k-40k



LAN and Internet

WAIS Server for Unix

\$15k-50k



Services and Training

1994 Plans

- **Server 2.0 Release: Integrate Browsing, DBMS, and Security**
- **Protocol Toolkit: Z39.50-v2, URL, RSA, etc**
- **For-Pay Services on the Internet**

WAIS Inc.

Digital Libraries and Network Publishing with Wide Area Information Servers

Brewster Kahle
President
Wide Area Information Servers, Inc
Sunsite Japan 12/7/93

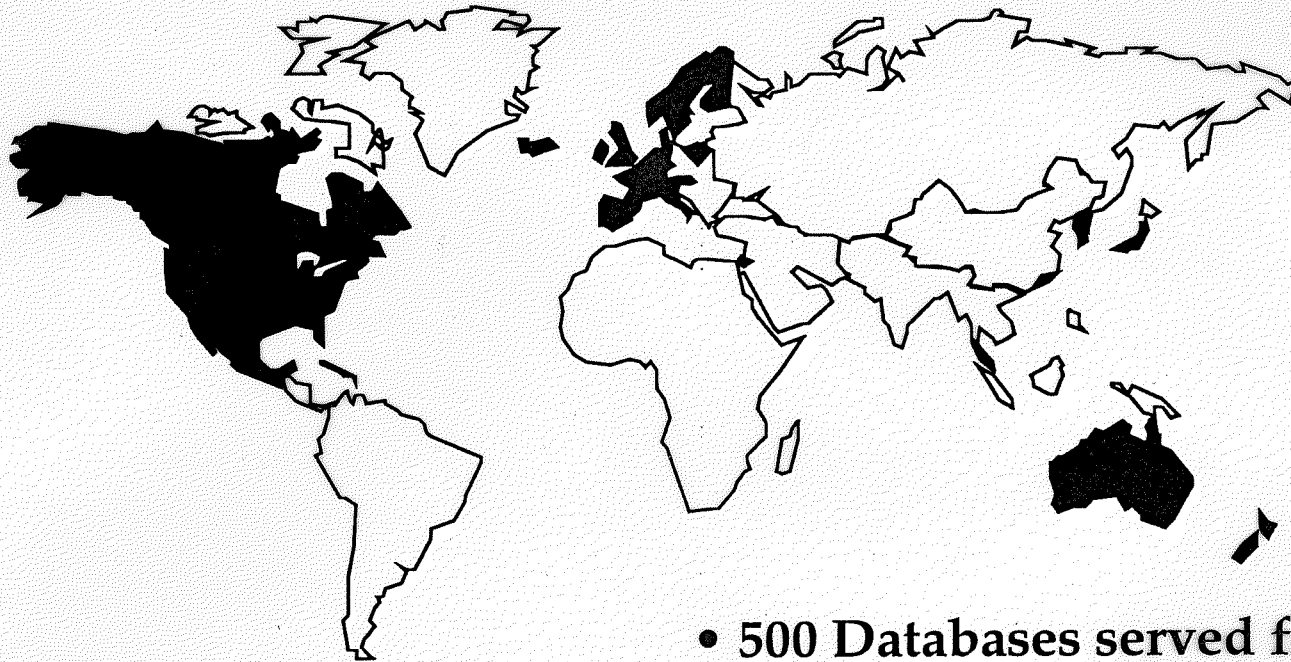
Sunsite Japan 12/7/93

Trends in Information Access

- **Wide Area Networks are Driving Changes**
 - Internet is Expanding Very Rapidly
- **Digital Libraries are making Libraries Crucial**
 - Scholarly and Technical Communications is already Digital
- **“Network Publishing” gives Companies an Advantage**

WAIS Inc.

WAIS on Internet



- Over 50,000 users on the Internet
- Users in 32 Countries: Mexico, Singapore, Finland, Australia, ...
- 500 Databases served from 12 Countries:
Norway, Canada, UK, ...
New database every day.
- VT-100 Interface in California:
240 each day, 4,600 different machines

Sunsite Japan 12/7/93

WAIS Inc.

Internet Services: Navigating Global Information Space

Allows
Personal news
feeds

Allows Personal
browsing

Allows Finding
People

Allows Finding
Information

Allows
Automated
Gathering

Basic Services

- Remote computer use
- Transferring files
- Email

Mailing Lists and Bulletin Board Services

- Automated mailing lists
- News distribution

Interactive Information Delivery Services

- Gopher
- Mosaic
- World Wide Web

Directory Services

- WHOIS
- X.500
- Netfind
- Whois++

Indexing Services

- Archie
- WAIS
- Veronica
- online library catalogues

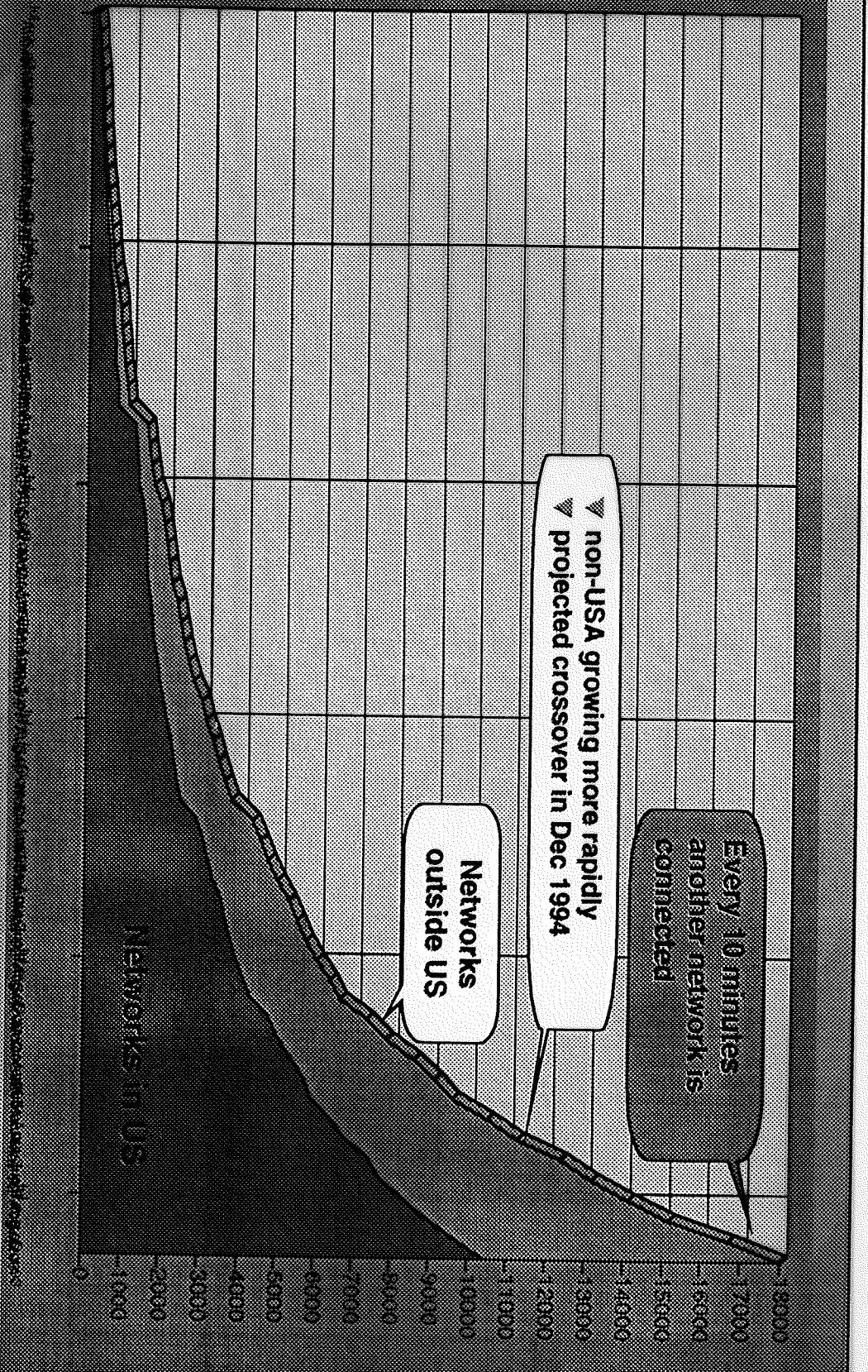
Active Agents

- Knowbots

Network Management

- SNMP
- SNMP2

History of Connected IP Networks: The Internet

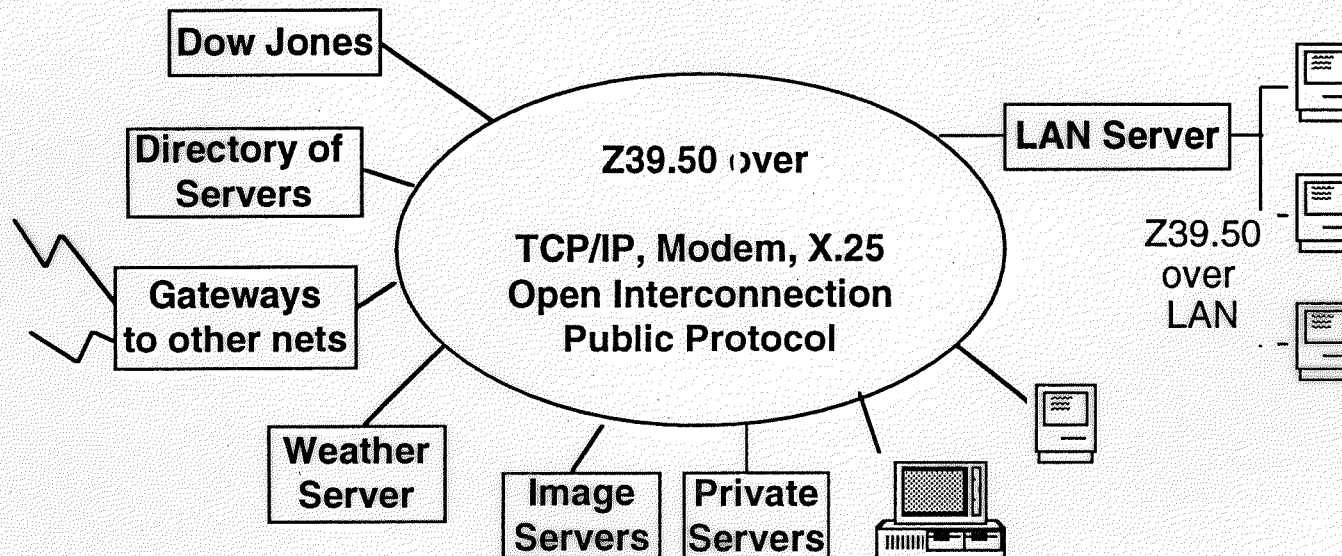


What is it?

Network Publishing

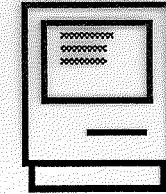
(Finding and retrieving information over wires)

Wide Area Information Server Architecture



- Point-and-click interface to Worldwide Information
- Client -----> Protocol -----> Server

WAIS Clients



- **Busy 24 hours a day finding information**
- **Ponder all indications of the preferences of its user**
- **Gossip with other clients about their discoveries**
- **Scours the world (within a budget) to find new sources**
- **Current implementations on PC, Macintosh,**
- **X Windows, NeXT, dumb terminal (dial-up)**

WAIS Protocol

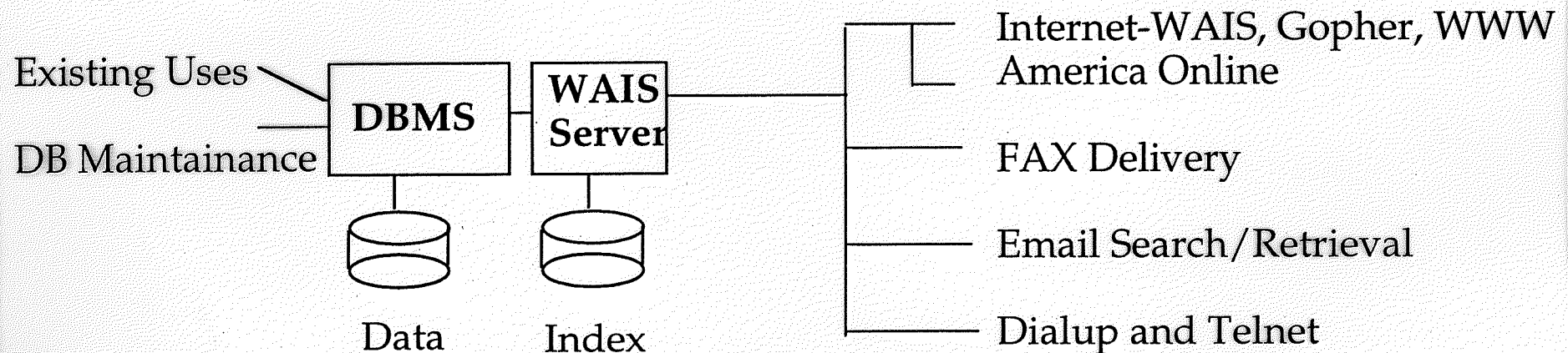
- Flexible, Extendable, and Standard
- Pieces:
 - Search: (*words, doc_ids, databases*) returns list of: (*headline, score, doc_id, types*)
 - Retrieval: (*doc_id, type, start, end*) returns: *data of specified type*
 - URL: An ISBN for the Electronic Age
 - Server Description Structure for the Directory of Servers
- NISO Z39.50, IETF URL, other international standards

US Federal Agencies Using WAIS

The OMB Circular A-130 specifically notes: 'Emerging standards such as Wide Area Information Servers (using the NISO Z39.50 standard) will be used increasingly to facilitate dissemination of government data...''

- **NII: Government Information Locators System**
- **Department of Energy**
- **NASA**
- **US Geological Survey**
- **Intelligence (Open Source)**
- **FBI (Terror an Arson)**
- **Defense Technical Information Center (DTIC)**
- **US Department of Agriculture**
- **Environmental Protection Agency**
- **Securities and Exchange Commission (soon)**

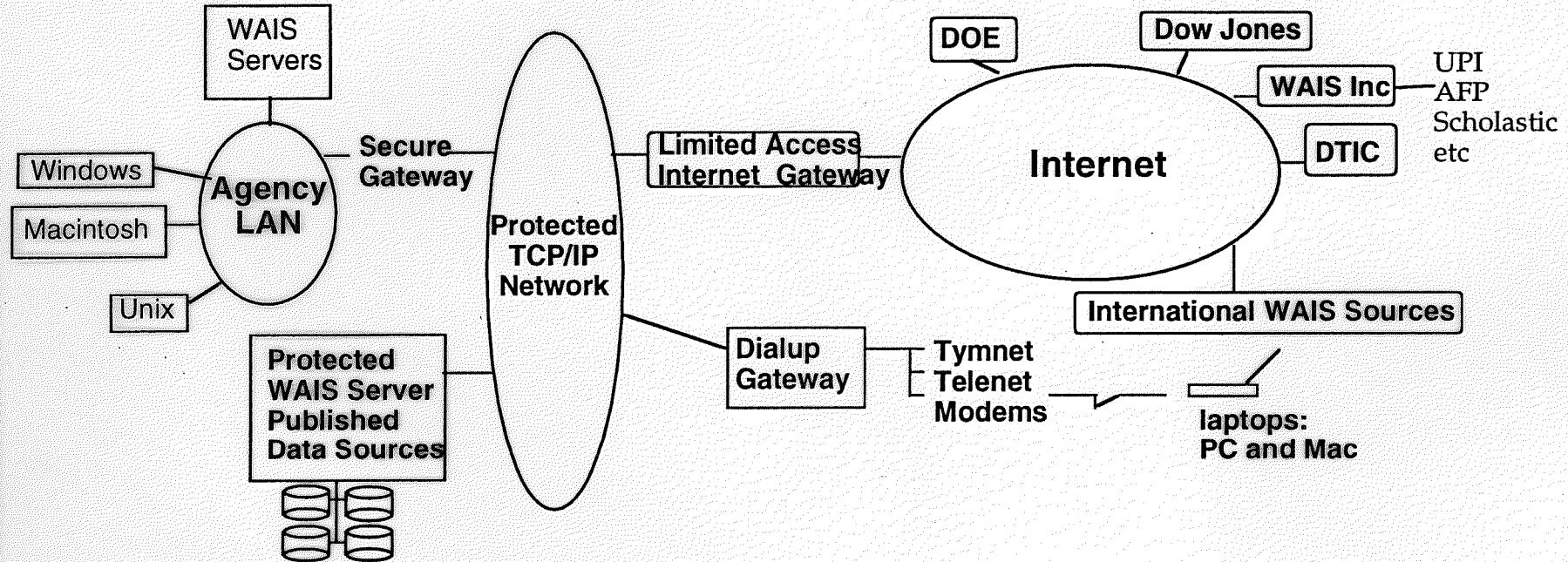
Defense Technical Information Center WAIS System



- Project Just Starting (due within 1 year)
- Increased access to Databases and Documents

WAIS Inc.

US Intelligence Agencies Open Source WAIS System



Sunsite Japan 12/7/93

Digital Libraries

- Easy to use card catalog (MARC records)
- Remote use from home or office
- Full text, scanned documents, Pictures

| | |
|------------------------|------------------------------|
| [pegun.law.columbia.e] | columbia-law-library-catalog |
| [pegun.law.columbia.e] | columbia-spanish-law-catalog |
| [quake.think.com] | tmc-library |

Network Publishers: Sun Microsystems

- **Combined use of Network Tools to Stay in Touch with Customers**
- **Email Lists to 10,000 users**
- **Archive Downloads of 12,000/day**
- **Press Releases, Bug Fixes, Etc**

A “Network Book” Contains:

Table of Contents: Browsing (e.g. Gopher)

Pages: With active footnotes, dynamic illustrations (e.g. WWW)

Index: Dive into a subject Area (e.g. WAIS)

Works over a Network (e.g Internet)

Run Initial Query

The screenshot shows a window titled "Question-1" with a standard Mac OS-style title bar. Inside the window, there are three main sections:

- Look for documents about**: A text input field containing "recent developments in personal computers". To the right of the field are up and down arrow buttons and a "Run" button.
- Which are similar to in these sources**: A section with two input fields. The first field is empty with up and down arrow buttons. The second field contains "Wall St. Journal" with a magnifying glass icon to its left and up and down arrow buttons to its right.
- Results**: A list of search results, each preceded by a small document icon. The results are:
 - *** Compaq Computer Directors Approve 2-for-1 Stock Split
 - *** International: Bull Agrees to Pay Zenith \$15 Million to End
 - *** AT&T Set to Announce Memorex Computer Accord
 - *** Technology Brief -- International Business Machines: Price
 - *** Business Brief -- Data General Corp.: Four Models Are Un
 - *** Technology: Computer Firms See the Writing on the Screen
 - *** Retailing: Businessland Enters Japan, Aided by 4 Big Loca
 - *** Corrections & AmplificationsTo the right of the list are up and down arrow buttons. Below the list is a horizontal scrollbar.

WAIS Inc.

Click a Headline to Display a Document

